

**1.-32. (CANCELED)**

**33. (NEW)** A method for deriving representations of the individual outcomes of launching objects into an area that contains a plurality of mutually-spaced object-sensing means, wherein each sensing means detects the presence of any of the launched objects that arrive in the location of that respective sensing means, a prediction of the outcome of the launching of each individual object is computed in dependence upon measurements of velocity vectors of that object at launch, the prediction is used to provide representation of the outcome of the launch of that respective object in the event that the presence as aforesaid of that object is not detected by the sensing means, and the computation process by which the predictions are computed is subject to adaptive correction in dependence upon error between the outcome predicted and the actual outcome realised in respect of individual objects for which the presence as aforesaid is detected by any of the sensing means.

**34. (NEW)** The method according to claim 33, wherein the representation provided in respect of the individual objects for which the presence as aforesaid is detected by any of the sensing means, is of the actual outcome realised.

**35. (NEW)** The method according to claim 33, wherein the measurements of velocity vectors of each object at launch are derived by detecting light-change resulting from passage of that object through detection planes defined by respective slit-apertures.

**36. (NEW)** The method according to claim 35, wherein each detection plane involves means for emitting light as a beam through the respective slit-aperture and means for sensing light from the beam reflected back through that same slit-aperture.

**37. (NEW)** The method according to Claim 36, wherein each object carries at least one retro-reflective element for reflecting light from the beam back to the light-sensing means.

**38. (NEW)** The method according to claim 33, wherein the sensing means each detect the presence as aforesaid of each said object by impact of that object within the respective location.

39. (NEW) The method according to claim 38, wherein each sensing means involves piezo-electric cabling for sensing impact.

40. (NEW) The method according to claim 39, wherein each sensing means includes a plurality of piezo-electric cables, and the position of the impact within the location of the respective sensing means is derived from electric signals produced in the respective cables in response to the impact.

41. (NEW) The method according to claim 33, wherein each said object carries a radio-frequency identification tag and the sensing means each include radio-frequency means for detecting the presence as aforesaid of each said object.

42. (NEW) The method according to claim 33, wherein the derived representations are provided in the form of video display.

43. (NEW) The method according to claim 33, wherein the objects are golf balls that are launched by a golfer in successive strikes.

44. (NEW) The method according to claim 43, wherein the prediction of the outcome of launching of each individual ball is computed in accordance with velocity and spin vectors of the ball at launch.

45. (NEW) The method according to claim 43, wherein the predicted outcome is represented in terms of the location the ball is predicted to reach within the area.

46. (NEW) The method according to claim 43, wherein the area is a golf range used by a plurality of golfers, and each golfer is provided individually with a representation of the outcome of his/her strikes.

47. (NEW) The method according to claim 46, wherein possible ambiguity in relating actual outcome with predicted outcome in respect of balls from different golfers is resolved on the basis of a probability assessment.

48. (NEW) A system for deriving representations of the individual outcomes of launching objects into a defined area, comprising a plurality of mutually-spaced object-sensing means within the defined area, each of the sensing means being operative to detect the presence of any of the launched objects that arrive in the location of that respective sensing means, launch-analyser means for deriving measurements of the launch velocity vectors of each of the objects individually, computer means for computing in dependence upon these measurements a prediction for the respective

object of the outcome of its launch, and means for providing representation of the computed prediction in the event that the presence as aforesaid of the respective object is not detected by the sensing means, and wherein the computation process by which the predictions are computed by the computer means is subject to adaptive correction in dependence upon error between the outcome predicted and the actual outcome realised in respect of individual objects for which the presence as aforesaid is detected by any of the sensing means.

49. (NEW) The system according to claim 48, wherein the representation provided in respect of the individual objects for which the presence as aforesaid is detected by any of the sensing means, is of the actual outcome realised.

50. (NEW) The system according to claim 48, wherein the measurements of velocity vectors of each object at launch are derived by detecting light-change resulting from passage of that object through detection planes defined by respective slit-apertures.

51. (NEW) The system according to claim 50, wherein each detection plane involves means for emitting light as a beam through the respective slit-aperture and means for sensing light from the beam reflected back through that same slit-aperture.

52. (NEW) The system according to claim 51, wherein each object carries at least one retro-reflective element for reflecting light from the beam back to the light-sensing means.

53. (NEW) The system according to claim 50, wherein the sensing means each detect the presence as aforesaid of each said object by impact of that object within the respective location.

54. (NEW) The system according to claim 53, wherein each sensing means involves piezo-electric cabling for sensing impact.

55. (NEW) The system according to claim 54, wherein each sensing means includes a plurality of piezo-electric cables, and the position of the impact within the location of the respective sensing means is derived from electric signals produced in the respective cables in response to the impact.

56. (NEW) The system according to claim 48, wherein each said object carries a radio-frequency identification tag and the sensing means each include radio-frequency means for detecting the presence as aforesaid of each said object.

57. (NEW) The system according to claim 48, wherein the derived representations are provided in the form of video display.

58. (NEW) The system according to claim 48, wherein the objects are golf balls that are launched by a golfer in successive strikes.

59. (NEW) The system according to claim 58, wherein the prediction of the outcome of launching of each individual ball is computed in accordance with velocity and spin vectors of the ball at launch.

60. (NEW) The system according to claim 58, wherein the predicted outcome is represented in terms of the location the ball is predicted to reach within the area.

61. (NEW) The system according to claim 58, wherein the area is a golf range having a plurality of bays for occupation by a plurality of golfers respectively, and each bay has means for providing a representation of the outcome of strikes from that bay.

62. (NEW) The system according to claim 61, wherein possible ambiguity in relating actual outcome with predicted outcome in respect of balls from different golfers is resolved on the basis of a probability assessment made by the computer means.